PJM Summer 2019 Operations Update

Illinois Commerce Commission

June 26, 2019

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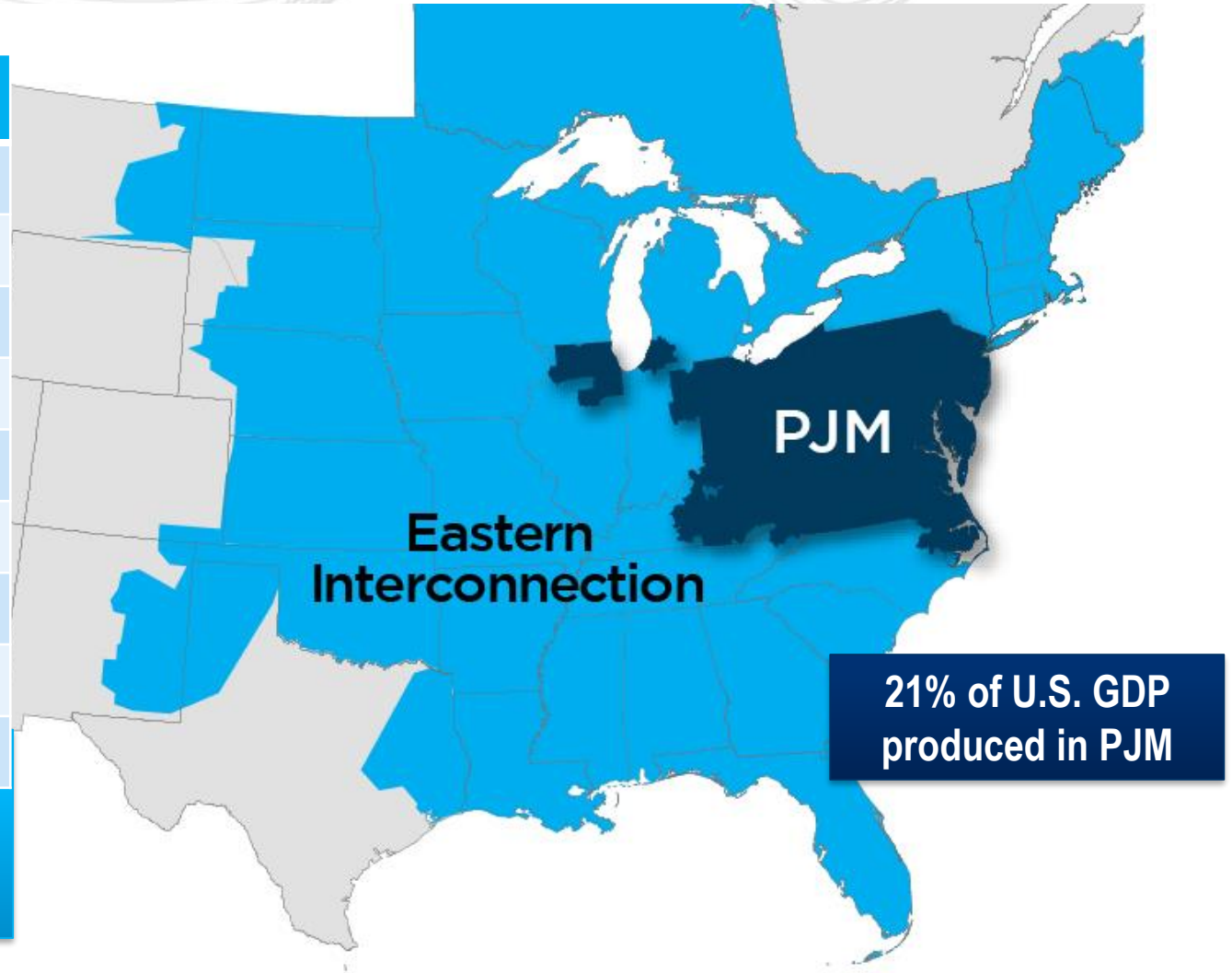
PJM as Part of the Eastern Interconnection

Key Statistics	
Member companies	1,010+
Millions of people served	65
Peak load in megawatts	165,492
MW of generating capacity	180,086
Miles of transmission lines	84,236
2018 GWh of annual energy	806,546
Generation sources	1,379
Square miles of territory	369,089
States served	13 + DC

- 26% of load in Eastern Interconnection
- 20% of transmission assets in Eastern Interconnection

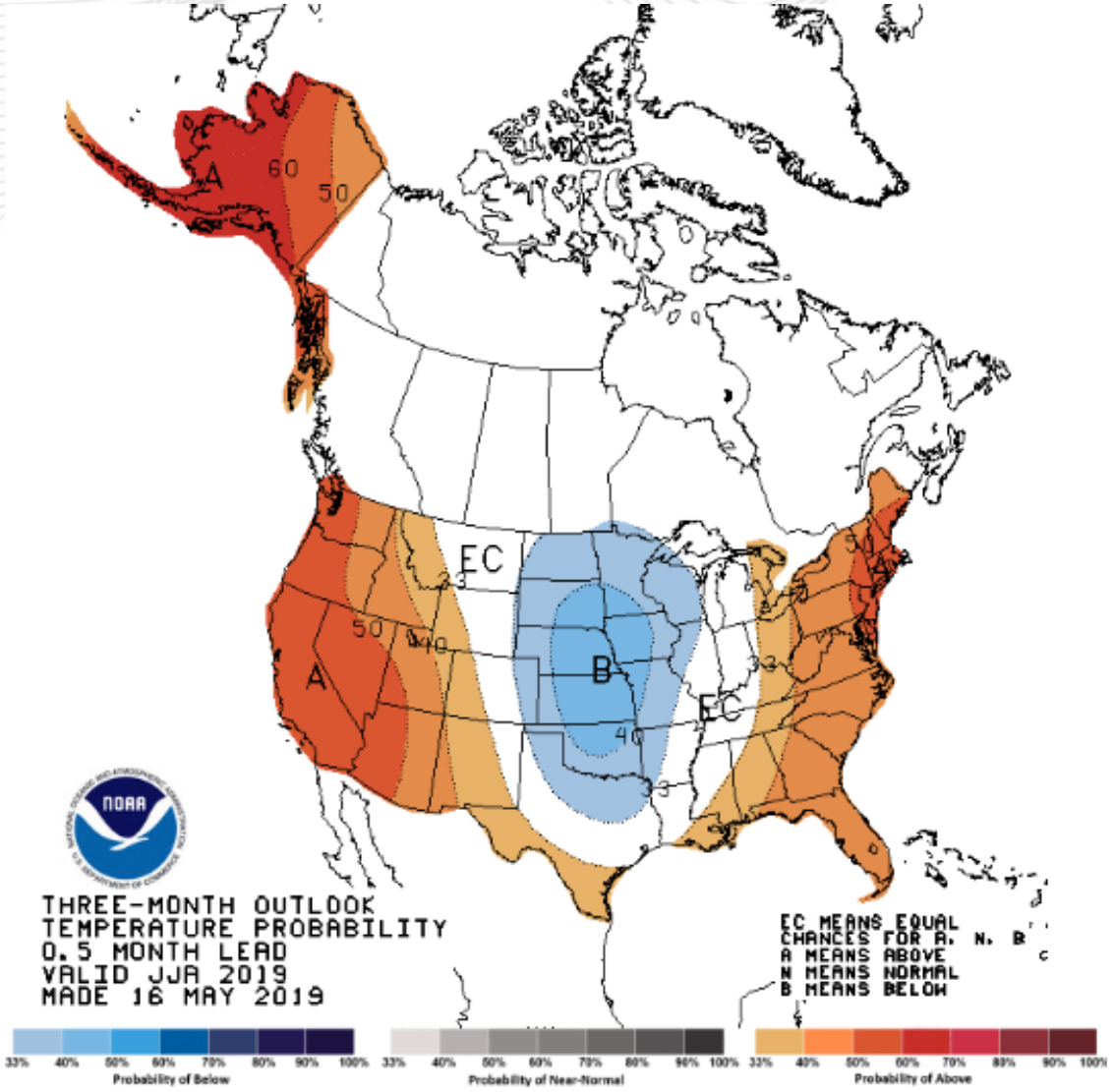


As of 1/2019

Summer 2019 Temperature Prediction

Current forecast suggests a higher probability of above average temperatures for most of the RTO.

There is a greater chance of above average temperatures in the eastern half of the RTO than in the west.



PJM Load and Capacity Comparison: 2018 vs. 2019

2018

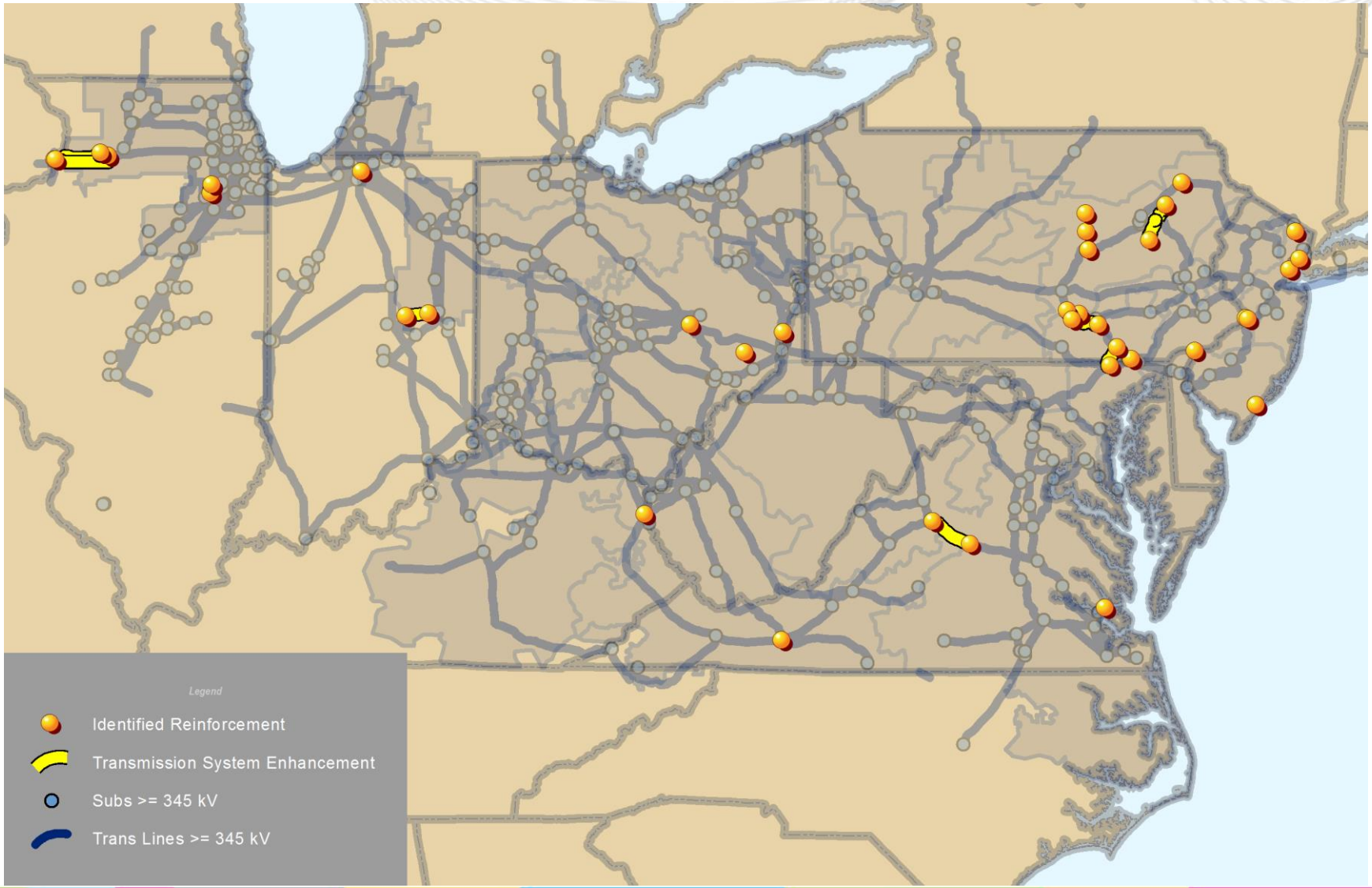
Forecast Load (MW) Total	Demand Response (MW)	Forecast Load Less Demand Response (MW)	Installed Generation Capacity (MW)	Reserve Margin (MW)	Reserve Margin	Required Reserve Margin
152,108	7,994	144,114	184,010	39,896	27.7%	16.1%

2019

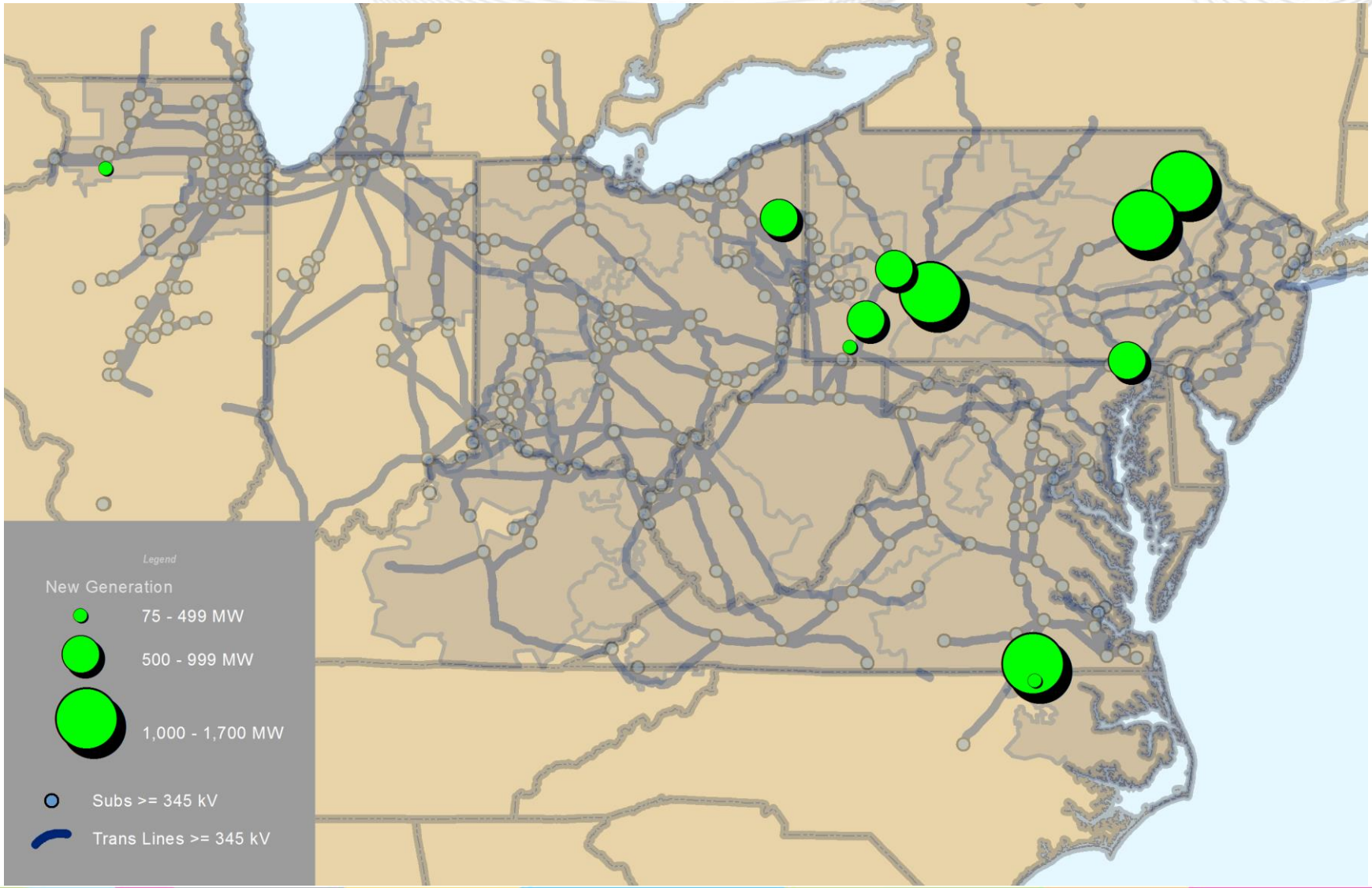
Forecast Load (MW) Total	Demand Response (MW)	Forecast Load Less Demand Response (MW)	Installed Generation Capacity (MW)	Reserve Margin (MW)	Reserve Margin	Required Reserve Margin
151,358 ↓	8,145 ↑	143,213 ↓	183,454 ↓	40,331 ↑	28.2% ↑	16.0% ↓

2018 (Metered Peak Load: 150,530 MW on 8/28/18 at HE 17)

Transmission Upgrades



Generation Changes



50/50 Non-diversified Peak Load Base Case	
LAS Load Forecast	157,338 MW
Preliminary RTO Net Interchange	1,300 MW** (Importing)
PJM RTO Installed Capacity	186,512 MW
Discrete Generator Outages	12,172 MW

** 1,300 MW of net interchange is modeled in the OATF base case and accounted for in the total RTO installed capacity.

Study Complete

- No reliability issues identified for base case and N-1 analyses
- Some off-cost generation re-dispatch required to control local thermal issues
- All voltage issues were resolve with capacitors
- Sensitivity studies – no concerns identified

Summer Preparedness

- Summer Seasonal Assessment
- Conduct emergency drills to ensure readiness
- System Operator Training
- Assess the weather outlook daily
- Review projected load and capacity
- Coordinate with neighboring systems to discuss the upcoming season conditions

Summary

- PJM expects to be able to reliably serve expected peak loads—peak loads are expected to be slightly higher this summer than in summer 2018.

- PJM generation (including firm external purchases) saw a net decrease of 556 MW between 2018 and 2019. The amount of demand response in PJM increased by 151 MW over the same period. The projected summer 2019 reserve margin of 28.2% exceeds the required reserve margin of 16.0%.

- The transmission system is expected to perform adequately based on applicable reliability criteria.